

Attorney Docket No.: J3509(C)
Serial No.: 09/764,734
Filed: January 17, 2001
Confirmation No.: 6621

REMARKS

Claims 1, 22, 23, 24, and 25 have been amended to replace the reference to "the outer surface of the human body or on apparel worn in close proximity thereto" with "the outer surface of the human body", in order to clarify the reference to the anti-microbial compositions therein described being deodorant products and to avoid confusion with compositions in the form of laundry products. Such amendment is not intended to exclude application of the deodorant product to apparel worn in close proximity to the body that occurs incidental to the application of the composition to the outer surface of the human body. For example, the deodorant product applied to the skin rubbing off onto clothing or being absorbed onto clothing, or the deodorant product contacting clothing in the course of its application to the body. In claim 25, the amendment clarifies that the outer surface of the human body is washed prior to the application of the deodorant product. Entry of the subject amendments is respectfully requested.

Pursuant to the Office Action of December 24, 2009, the pending claims were rejected under 35 U.S.C. 103(a) over JP8-53307 (Suzuki et al.), provided to Applicants as a machine translation and WO99/55953 (Altmann et al.). This rejection is respectfully traversed.

Suzuki et al. is directed to disinfectant cleaners that includes the known antibacterial agent PMIEC (in the machine translation referred to as ****- oxyethylene(dimethylimino)ethylene(dimethylimino)ethylene dichloride, which is believed to stand for poly[oxyethylene(dimethylimino)ethylene(dimethylimino)ethylene dichloride]. According to Suzuki et al., PMIEC is a **cationic** material that can react with **anionic** surfactants (common ingredients in cleaning products) to form what are said to be poorly soluble salts, resulting in a loss of both antibacterial action and detergency. See paragraph 0009. Suzuki et al. claims that when PMIEC is used together with a **particular anionic surfactant**, i.e., an alkanolamine salt of tall oil fatty acid or tall rosin

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fatty acid, there is little inhibition to antibacterial action and detergency¹. In paragraph 0016, with reference to the salts of tall oil fatty acid or tall rosin fatty acid Suzuki et al. states: The ethanolamine salt or (n-or iso-) the propanolamine salt of these mixed fatty acid is a cleaning agent especially desirable as a thing meeting the purpose of this invention..." (Excerpt from machine translation.) Suzuki et al. allows for chelating agent to be present as an additional component. At paragraph 0020 the citation notes "as a chelating agent, an ethylenediaminetetraacetic acid-**disodium salt**, ethylenediaminetetraacetic acid-3-**sodium salt**, nitrilotriacetic acid **sodium salt**, etc. can mention." (Excerpt from machine translation; emphasis added.)

Altmann et al., directed to fabric wrinkle control compositions, is referenced as teaching that perfumes are combined with microbicides. The compositions are said to comprise fabric lubricant, shape retention polymer, lithium salt, and/or plasticizers for wrinkle control. Chelating agents are disclosed as additional optional components. In discussing composition carriers the citation notes:

The preferred carrier of the present invention is water. The water which is used can be distilled, deionized, or tap water. Water is the main liquid carrier due to its low cost, availability, safety, and environmental compatibility. Aqueous solutions are preferred for wrinkle control and odor control.

...The level of liquid carrier in the compositions is typically greater than about 80%, preferably greater than about 90%, more preferably greater than about 95%, by weight of the composition.

...Optionally, in addition to water, the carrier can contain a low molecular weight organic solvent that is highly soluble in water, e.g., ethanol, propanol, isopropanol, and the like, and mixtures thereof. Low molecular weight alcohols can help the treated fabric to dry faster. The optional solvent is also useful in the solubilization of some shape retention polymers described hereinbefore. **The optional water soluble low molecular weight solvent can be used at a level of up to about 50%, typically from about 1% to about 20%, preferably from about 2% to about 15%, more preferably from about 5% to about 10%, by weight of the total composition.** (Emphasis added).

¹ According to the Fifth Edition of the International Cosmetic Ingredient Dictionary (1993), tall oil is a by-product of wood pulp that contains rosin acids, oleic and linoleic acids and long chain alcohols. A copy of the entry for tall oil is attached.

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The compositions described by the subject claims comprise a carrier material and a salt of a transition metal chelator comprising a solution **in an organic solvent** of a transition metal chelator anion and an organic cation, wherein the cation comprises a **protonated or quaternised amine, other than triisopropanolamine, containing 0 to 3 hydroxyl groups per N-substituent and at least one N-substituent comprising a C₁-C₁₀ terminal hydrocarbyl group**, the compositions being in the form of a deodorant product for use on the outer surface of the human body, and **wherein less than 50% by weight of water is present in such compositions**, excluding any volatile propellant that might be present. Pursuant to the subject invention it was found that the chelator salts described by the subject claims provide prolonged anti-microbial activity (which often manifests itself as a long-lasting deodorancy benefit) and **can afford greater compatibility of the chelator salts with the other composition components, for example, the organic solvent**. Being able to formulate **organic solutions** of the chelator salts offers particular advantages as regards many of the problems associated with suspension products such as sprays, for example valve blocking, settling and caking of the suspended solids and uneven application. Additionally, the anti-microbial compositions of the invention can be formulated **with relatively low levels of water**.

Respectfully, neither Suzuki et al. nor Altmann et al. discloses or suggests the chelator salts of the subject claims. **In particular there is no disclosure of a chelator salt whose cation comprises a protonate or quaternised amine having a C₁-C₁₀ terminal hydrocarbyl group as described by the subject claims**. Moreover, neither application discloses or suggests the advantages of such chelating agents in solution in an organic solvent in compositions containing less than 50% by weight water. In addition to other distinguishing features, it is respectfully submitted that the compositions of Altmann et al. contain higher levels of water than the compositions of the subject claims. Moreover, the end-use application of the subject compositions, i.e., as a deodorant product for use on the surface of the human body, is different from the cleansing products of Suzuki et al. and the fabric wrinkle control compositions of Altmann et al.

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In short it is submitted that the neither the subject compositions nor the benefits thereof can be said to be reasonably derived from Suzuki et al. and Altmann et al. alone or in combination.

In light of the above amendments and remarks, it is respectfully requested that the application be allowed to issue.

If a telephone conversation would be of assistance in advancing the prosecution of the present application, applicants' undersigned attorney kindly requests the Examiner to telephone at the number provided.

Respectfully submitted,

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International Cosmetic Ingredient Dictionary

**Fifth Edition
1993**

Editors

John A. Wenninger

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Volume 1

Published by
The Cosmetic, Toiletry, and Fragrance Association
1101 17th Street, N.W., Suite 300
Washington, D.C. 20036-4702

N,N-Bis(2-Hydroxyethyl)Tall Oil Acid Amide
N,N-Bis(2-Hydroxyethyl)Tall Oil Fatty Amides
Diethanolamine Tall Oil Acid Amide
Tall Oil Acid Diethanolamide

Trade Name:

Hetamide DT (Heterene)

TALL OIL

CAS Number: 8002-26-4

EINECS Number: 232-304-6

Definition: Tall Oil is a by-product of wood pulp. It contains rosin acids, oleic and linoleic acids and long chain alcohols.

Information Sources: 21CFR175.105, 21CFR175.300, 21CFR176.200, 21CFR176.210, 21CFR177.2600, 21CFR177.2800, 21CFR181.22, 21CFR181.26, 21CFR182.70, 21CFR186.1557, MI-9(8819), TSCA

TALL OIL ACID

CAS Number: 61790-12-3

EINECS Number: 263-107-3

Definition: Tall Oil Acid is the mixture of rosin acids and fatty acids recovered from the hydrolysis of Tall Oil (q.v.).

Information Sources: 21CFR175.105, 21CFR175.320, 21CFR176.200, 21CFR176.210, 21CFR177.2600, 21CFR177.2800, 21CFR178.3570, 21CFR178.3910, CIR: JACT-8(4)1989, CTFA D, JCID-IV-242, TSCA

Technical Names:

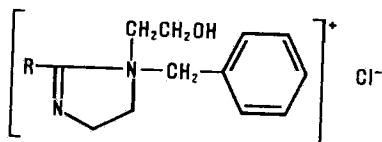
Acids, Tall Oil
Fatty Acids, Tall Oil

Trade Names:

Acintol EPG (Arizona)
Acintol FA-1 (Arizona)
Acintol FA-2 (Arizona)
Pamak 4 (Hercules)

TALL OIL BENZYL HYDROXYETHYL IMIDAZOLINIUM CHLORIDE

Definition: Tall Oil Benzyl Hydroxyethyl Imidazolinium Chloride is the quaternary ammonium salt that conforms generally to the formula:



where R represents the alkyl groups derived from tall oil.

TALL OIL GLYCERIDES

CAS Number: 97722-02-6

Definition: Tall Oil Glycerides is a mixture of the mono, di and triglycerides derived from Tall Oil (q.v.).

Technical Name:

Glycerides, Tall Oil Mono-, Di- and Tri-

Trade Name:

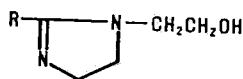
Zonester 85 (Arizona)

TALL OIL HYDROXYETHYL IMIDAZOLINE

CAS Number: 61791-39-7

EINECS Number: 263-171-2

Definition: Tall Oil Hydroxyethyl Imidazoline is the heterocyclic compound that conforms generally to the formula:



where R represents the alkyl groups derived from tall oil.

Technical Names:

4,5-Dihydro-7-Nortall Oil-1H-Imidazole-1-Ethanol
1H-Imidazole-1-Ethanol, 4,5-Dihydro-, 2-Nortall Oil
Miramine TOC
2-Nortall Oil-1H-Imidazole-1-Ethanol, 4,5-Dihydro-

Trade Name:

Monazoline T (Mona)

TALL OIL STEROL

Definition: Tall Oil Sterol is the complex mixture of phytosterols (polycyclic polyterpenes, complex monohydric alcohols and their esters) recovered from fractions of Tall Oil (q.v.).

Trade Name:

Wood Sterol (Kaukas)

TALLOW

CAS Number: 61789-97-7

EINECS Number: 263-099-1

Definition: Tallow is the fat derived from the fatty tissue of sheep or cattle. It consists primarily of fatty acid glycerides.

Information Sources: 21CFR175.105, 21CFR175.210, 21CFR176.170, 21CFR176.200, 21CFR176.210, 21CFR177.2800, 21CFR182.70, CIR: JACT-9(2)1990, CLS-I-308, CTFA D, JCID-IV-110, MI-9(8820), TSCA

Technical Names:

Beef Tallow
Mutton Tallow
Tallow, Beef
Tallow, Mutton

TALLOW ACID

CAS Number: 61790-37-2

EINECS Number: 263-129-3

Definition: Tallow Acid is the mixture of fatty acids derived from Tallow (q.v.).

Information Sources: 21CFR175.105, 21CFR175.320, 21CFR176.200, 21CFR176.210, 21CFR177.2260, 21CFR177.2800, 21CFR178.3570, 21CFR178.3910, CLS-I-309, JCID-IV-111, TSCA

Technical Names:

Acids, Tallow
Fatty Acids, Tallow

Trade Names:

Hy-Phi 4204 (Darling)
Industrene 143 (Witco)
PRIFAC 7920 (Unichema)
PRIFAC 7935 (Unichema)
T-18 (Procter & Gamble)
T-22 (Procter & Gamble)

Trade Name Mixtures:

PRIFAC 7948 (Unichema)
PRIFAC 7981 (Unichema)

TALLOW ALCOHOL

Definition: Tallow Alcohol is the mixture of fatty alcohols derived from Tallow (q.v.).

Information Sources: 21CFR176.170, 21CFR176.210, MI-9(8821)

Technical Name:

Alcohols, Tallow

Trade Name Mixture:

Emulgade K (Henkel)

TALLOWALKONIUM CHLORIDE

CAS Number: 61789-75-1

The inclusion of any compound in the Dictionary does not indicate that use of that substance as a cosmetic ingredient complies with the laws and regulations governing such use in the United States or any other country.